

Newsletter Index

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CES TECHNICAL NEWSLETTER MINILOADER 2 PLUS
Health Sciences Products

FOR KODAK PERSONNEL USE ONLY**ISSUE: No 1/NOVEMBER/92**

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1. NEW SOFTWARE

The latest version of SOFTWARE is now available. The version for the PROCESSOR INTERFACE (M35-M & 480RA) MINILOADERS is P1.4 - 16/10/92, and for the STAND-ALONE MINILOADERS is S1.3 - 16/10/92.

The table below shows the part numbers of the VARIANTS of this SOFTWARE with the various languages available, please make sure you order the correct EPROM for the type of MINILOADER and for your country.

The MINILOADERS which require the new SOFTWARE are:-

MODEL M35-M	SERIAL NUMBERS	2604 & 2606 - 2621
MODEL STAND-ALONE	SERIAL NUMBER	3003
MODEL 480RA	SERIAL NUMBERS	4002 & 4004 - 4006

PART NUMBER	TYPE OF MINILOADER	VARIANT NO.	LANGUAGE
30025870	STAND ALONE	VARIANT 1	ENGLISH/SWEDISH
30025871	M35-M / 480RA	VARIANT 1	ENGLISH/GERMAN
30025872	M35-M / 480RA	VARIANT 2	ENGLISH/ITALIAN
30025873	M35-M / 480RA	VARIANT 3	ENGLISH/SPANISH
30025874	M35-M / 480RA	VARIANT 4	ENGLISH/SWEDISH
30025875	M35-M / 480RA	VARIANT 5	ENGLISH/PORTUGUESE
30025876	M35-M / 480RA	VARIANT 6	ENGLISH/NORWEGIAN
30025869	M35-M / 480RA	VARIANT 7	ENGLISH/FRENCH

The new SOFTWARE VERSIONS correct some messaging errors and prevent some possible minor malfunctions of the MINILOADER especially in SERIAL MODE. They also have the full messaging in all available languages.

IMPORTANT: ALL MINILOADERS are shipped with VARIANT 1 SOFTWARE, this means that when delivered, PROCESSOR INTERFACE machines have ENGLISH & GERMAN language available and STAND-ALONE MACHINES have ENGLISH & SWEDISH language available. At installation the correct VARIANT of SOFTWARE for your country should have been ordered by CATALOGUE NUMBER by SALES/MARKETING.

2. LANGUAGE ERRORS.

Please report any language errors to your country specialist by giving:-

- a) The correct translation.
- b) The existing incorrect translation with the errors highlighted.
- c) If possible give the English version of the message.

Please use a copy of the FORM below to report any errors. Use a separate copy for every incorrect message.

VERSION NUMBER OF THE SOFTWARE :-

VARIANT NUMBER OF THE SOFTWARE :-

DATE REPORT IS MADE :-

YOUR NAME :-

YOUR ADDRESS :-

Send the FORM via your COUNTRY SPECIALIST to :-

W F CRICHTON, KODAK LTD, C/O DEPT. A3M, KODAK HOUSE, PO BOX 66, HEMEL HEMPSTEAD,
HP1 1JU, ENGLAND.

Correct translation

Incorrect translation

English version of message

3. MODIFICATION M01 (TYPE 1 REQUIRED).

Modification M01 is a small modification to ensure correct earthing of the MAIN EARTHING SCREW in the MINILOADER.

PART NUMBER 30091101 AVAILABLE NOW.

SERIAL NUMBERS AFFECTED :-

Model STAND-ALONE	(S V Code 3236)	3001 - 3004
Model M35-M	(S V Code 3239)	2603 - 2612
Model 480 RA	(S V Code 3240)	4001 - 4003

4. MODIFICATION M02.

Modification M02 is a modification to prevent 8 x 10 VIDEO CASSETTES being entered into the MINILOADER when 24 x 30 size is selected. If a CASSETTE is wrongly inserted it may jam inside the MINILOADER.

For full details of this modification, see the PUBLICATION "MODIFICATION INFORMATION" number MA3239-M02 available from PARTS SERVICES in ROCHESTER.

IT IS NOT A FIELD MODIFICATION.

FACTORY FITTED FROM SERIAL NUMBERS :-

Model STAND-ALONE	(S V Code 3236)	3005
Model M35-M	(S V Code 3239)	2619
Model 480 RA	(S V Code 3240)	4005

5. MODIFICATION M03 (TYPE 1 REQUIRED).

Modification M03 is a modification to prevent "CAM SYSTEM MALFUNCTIONS" (ERROR CODE *22*). The speed of the CAM MOTOR is reduced to prevent damage to the CAM MOTOR RELAYS, and lengthen the life of the MOTOR. FILM handling is also improved. The modification will also prevent spurious blowing of the CAM MOTOR FUSE.

THIS MODIFICATION HAS NO PART NUMBER. IT IS AVAILABLE NOW BY QUOTING THE SERIAL NUMBER OF THE MINILOADER THAT THE MODIFICATION IS REQUIRED FOR TO YOUR COUNTRY SPECIALIST.

SERIAL NUMBERS AFFECTED :-

Model STAND-ALONE	(S V Code 3236)	3003
Model M35-M	(S V Code 3239)	2603 - 2621
Model 480 RA	(S V Code 3240)	4002 & 4004 - 4006

6. MODIFICATION M04 (TYPE 1 REQUIRED).

Modification M04 is a modification to reduce the speed of the TILT MOTOR by fitting a different GEARBOX. The new GEARBOX has a ratio of 80:1 compared to the 40:1 ratio of the old GEARBOX. At present the tilt speed control POTENTIOMETER setting is critical. If the speed is set too low, the TILT MOTOR can stall and give ERROR CODE *23*. If the speed is set too high the TILT MOTOR can over-run and cause the FILM to be caught on the edge of the MAGAZINE or on the MULTIPLE FILM DETECTOR. On some units, it was impossible to obtain a satisfactory setting.

PART NUMBER 30091104 AVAILABLE NOW.

THE OLD TILT MOTOR ASSEMBLY MUST BE RETURNED TO STUTTGART, OTHERWISE YOUR COUNTRY WILL BE CHARGED DM 500 FOR THE KIT.

SERIAL NUMBERS AFFECTED :-

Model STAND-ALONE	(S V Code 3236)	3001 - 3004
Model M35-M	(S V Code 3239)	2603 - 2621
Model 480 RA	(S V Code 3240)	4001 - 4006

7. PROCESSOR VENTING.

Several reports have been received of MINILOADERS being damaged by PROCESSOR FUMES. It is vitally important that the PROCESSOR is correctly vented, as described in all PROCESSOR SERVICE MANUALS and also in the MINILOADER 2 PLUS SITE SPECIFICATIONS SS 3239.

If the venting is not correct, **DO NOT INSTALL THE MINILOADER, IT WILL BE DAMAGED.**

8. CASSETTE PATCHING.

All MINILOADER CASSETTES must be patched correctly otherwise reliable operation is impossible. The CASSETTES should be patched as detailed on the following pages using TOOLS 9194531 & 9194511.

The correct PATCHES are PART NUMBER 9194551, REFLECTIVE FOIL 8 x 15 mm., the PATCHES should be placed as shown in figures 1 & 2.

It is advisable to replace the PATCHES on the OUTSIDE of the CASSETTE on every PM visit.

It is also advisable to supply your customer with a small quantity of the PATCHES, and train them how to replace the exterior PATCHES if the CASSETTE is repeatedly ejected.

MAMMOGRAPHY CASSETTES

Place 3 PATCHES (8 x 15 mm) as shown in Figure 1, using the TOOLS as indicated. If MODIFICATION 2 is active, no MAMMOGRAPHY CASSETTES should have a second (TYPE 2) patch.

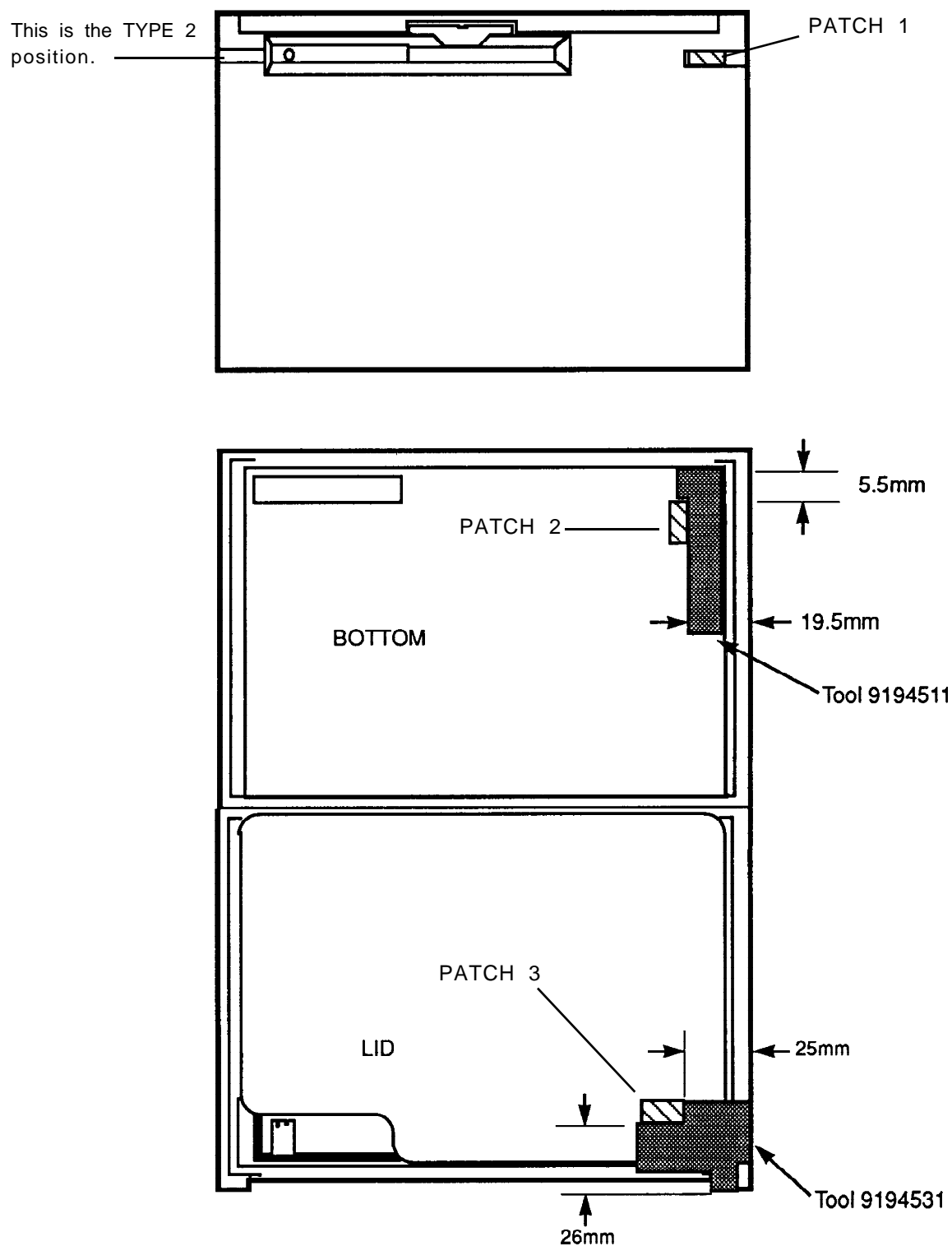


FIGURE 1

VIDEO CASSETTES

Fit one PATCH as shown in FIGURE 2. If MODIFICATION 2 is active, fit a second PATCH as shown.

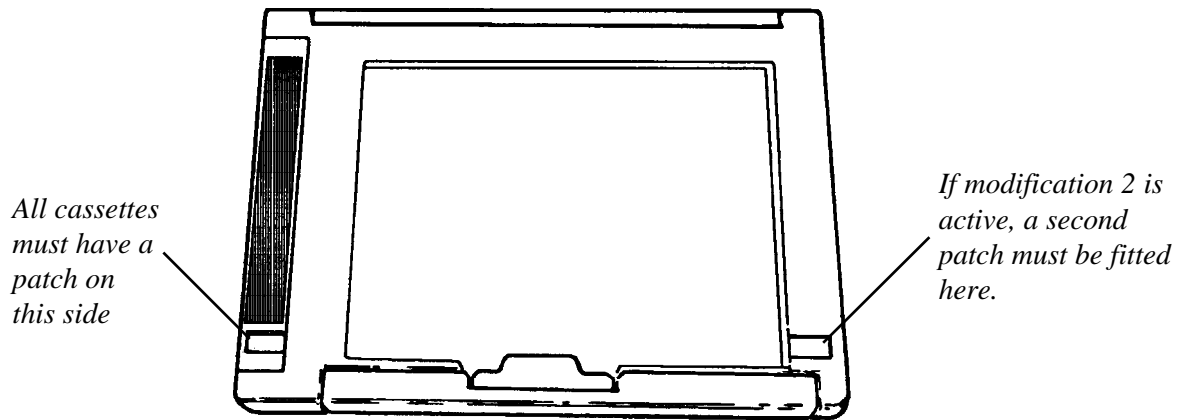


FIGURE 2

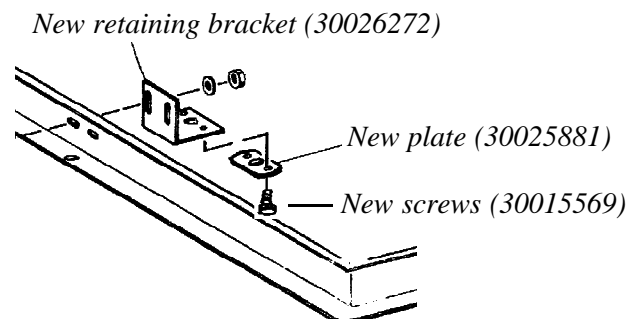
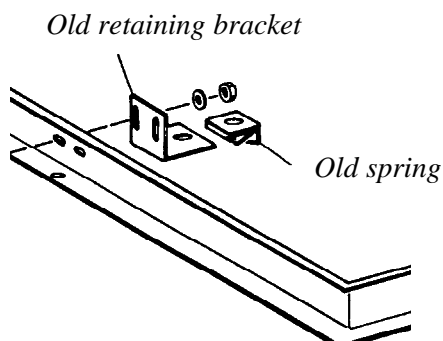
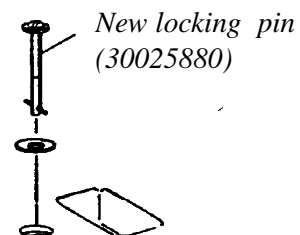
9. NEW TOP COVER FASTENERS FOR MODEL M35-M.

To improve the fastening of the TOP COVER on the M35-M model, new FASTENERS have been introduced. The new FASTENERS have a better location, and do not jam. Instead of a SPRING CLIP, they use a PLATE which is screwed to the RETAINING BRACKET.

To fit the new LOCKING SYSTEM, order

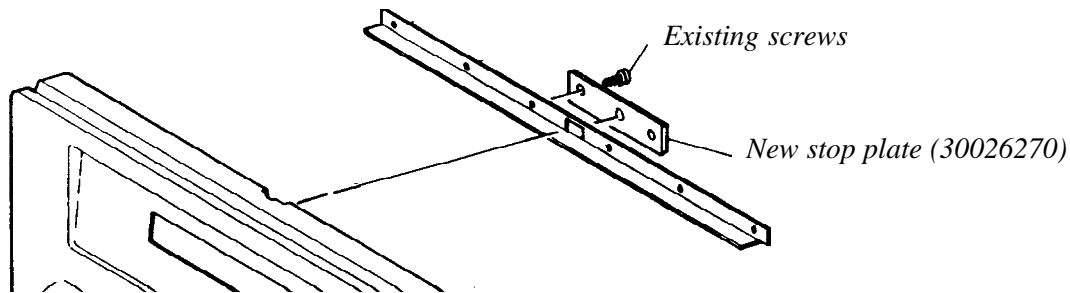
2	30025880	LOCKING PIN
2	30026272	RETAINING BRACKET
2	30025881	THREADED PLATE
4	30015611	SCREW, HEX HEAD M3 x 6

Fit the new parts and adjust the height of the RETAINING BRACKET to obtain correct fixing of the TOP COVER.



10. FRONT PANEL STOP PLATE.

A STOP PLATE has been added to the FRONT PANEL of all MINILOADERS. This STOP PLATE (30025162) prevents the FRONT PANEL gradually moving upwards during operation, which can made it more difficult to enter a CASSETTE. The STOP is fastened on with the existing SCREWS, and can be adjusted to set the position of the FRONT PANEL.



If you have a MINILOADER on which the FRONT PANEL tends to "ride up", order the STOP PLATE and fit as shown in the diagram. Set the height of the STOP PLATE to obtain the required height of the ENTRY SLOT.

Send Newsletter Articles to:

Bill Crichton, Customer Equipment Services
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PO Box 66
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ENGLAND



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CES TECHNICAL NEWSLETTER MINILOADER 2 PLUS**Health Sciences Products**

FOR KODAK PERSONNEL USE ONLY

ISSUE: No 2/APRIL/93

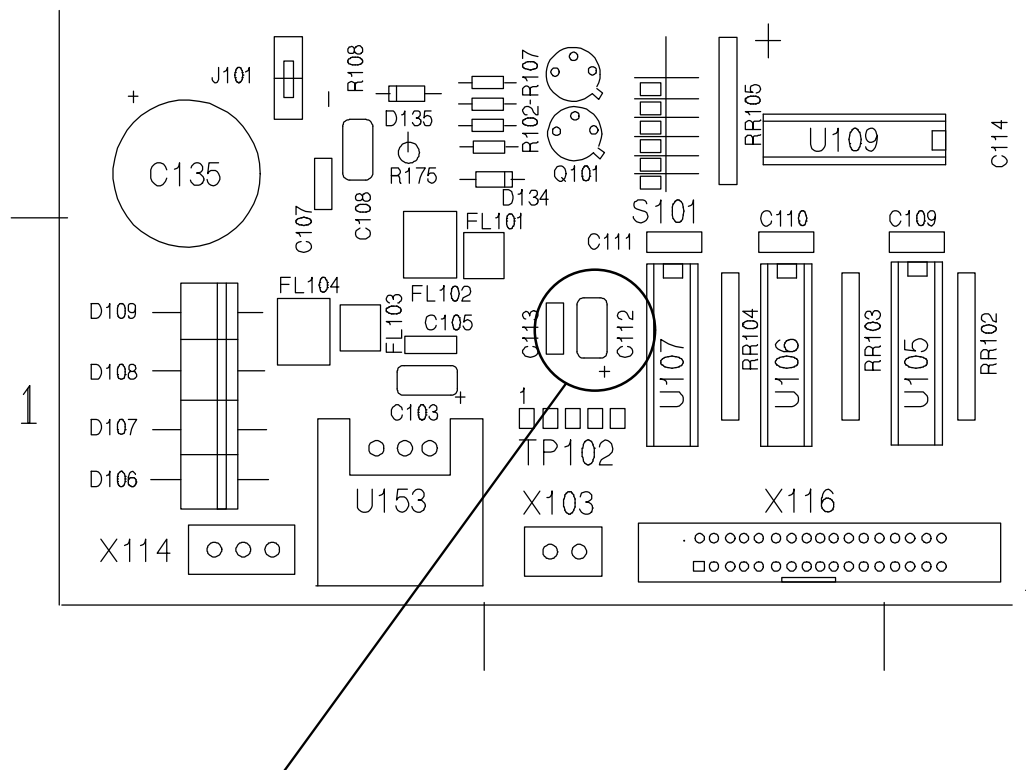
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11.CHECKING CAPACITOR ON PCB 301

On some PCB 301's (Microprocessor PCB), CAPACITOR C112 has been incorrectly inserted. The overlay on the PCB is incorrect, the CAPACITOR should be inserted as shown below.

CAPACITOR C112 is part of the MICROPROCESSOR POWER SUPPLY, and if the CAPACITOR is fitted incorrectly, the machine will be susceptible to mains voltage transients and noise.

On the next SERVICE CALL to a MINILOADER 2 PLUS, please check the orientation of the CAPACITOR and correct if necessary.



CAPACITOR C112 should be inserted with the POSITIVE end as shown here.

12. MODIFICATION M05 (TYPE 1 REQUIRED).

Modification M05 is a modification to add earth (grounding) WIRES to the three DC BRUSH MOTORS (CASSETTE CONVEYOR MOTOR M6, CAM MOTOR M7 and the MAGAZINE CARRIAGE MOTOR M8) to prevent noise from the BRUSHES affecting the MICROPROCESSOR. Suppression CAPACITORS are fitted to these MOTORS, but if the MOTORS are not earthed (grounded), the CAPACITORS will not be effective.

PART NUMBER 30091105 AVAILABLE NOW

SERIAL NUMBERS AFFECTED :-

Model STAND-ALONE	(SV Code 3236)	3001 - 3008
Model M35-M	(SV Code 3239)	2603 - 2634
Model 480 RA	(SV Code 3240)	4001 - 4007

13. CASSETTE CONVEYOR BELT DRIVE ROLLERS.

To prevent the CASSETTE CONVEYOR BELT DRIVE ROLLERS becoming un-bonded from their SHAFTS, the ROLLERS are now pinned to the SHAFTS. The part numbers are unchanged. All stock held will be the new ROLLER.

NEW ROLLER FITTED IN MANUFACTURE FROM SERIAL NUMBER :-

Model STAND-ALONE	(SV Code 3236)	3009
Model M35-M	(SV Code 3239)	2630
Model 480 RA	(SV Code 3240)	4008

14. MINILOADER 2 RECEIVING MAGAZINES.

The SERIAL MAGAZINES supplied with M35-M and 480RA versions of the MINILOADER, cannot be used as RECEIVING MAGAZINES in a STAND-ALONE MINILOADER. RECEIVING MAGAZINES are mechanically different, and if the customer requires extra RECEIVING MAGAZINES they must be ordered as:-

<u>PART NUMBER</u>	<u>DESCRIPTION</u>
30026239	RECEIVING MAGAZINE 18 x 24
30026240	RECEIVING MAGAZINE 24 x 30 / MIXED SIZES

The 24 x 30 / MIXED SIZES MAGAZINE must be prepared as described in the INSTALLATION INSTRUCTIONS page 17 & 18.

15.USING A MINILOADER IN A DARKROOM.

To allow the brightness of the "TRAFFIC LIGHT" indicators to be adjusted when the MINILOADER is used in a DARK ROOM, a POTENTIOMETER has been added to the POWER CABLE from PCB 402 to PCB 204. The POTENTIOMETER end of the CABLE should be connected to X402 on PCB 204.

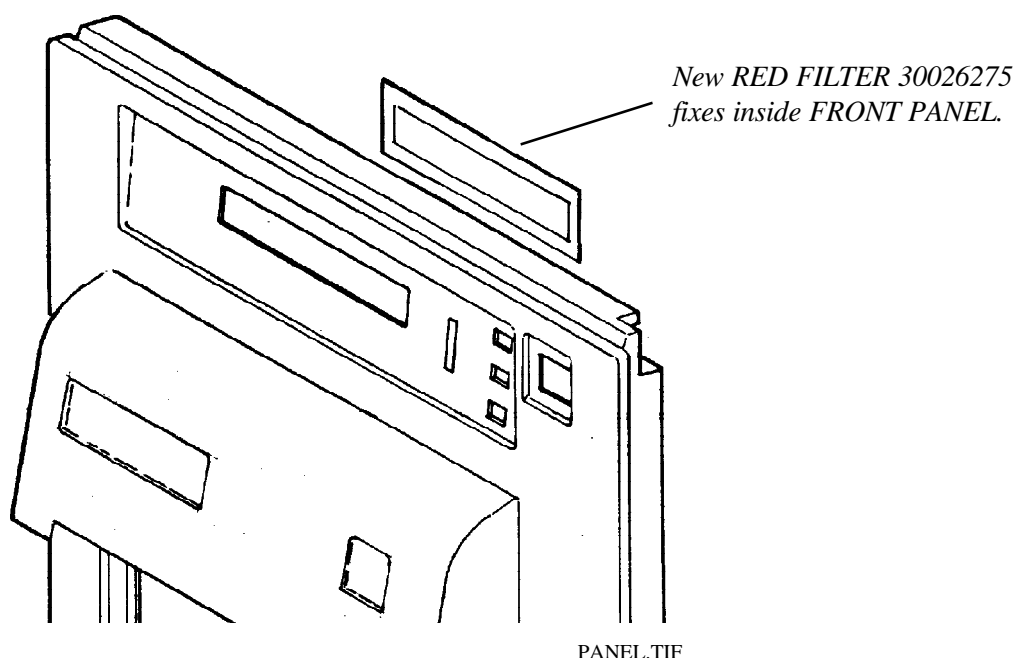
The CABLE part number has changed from 30025865 to 30025882. Please alter the part number in your PARTS LIST IP 3239 - December 92. (Item 5 on page IP 201).

NEW CABLE FITTED IN MANUFACTURE FROM SERIAL NUMBER :-

Model STAND-ALONE	(SV Code 3236)	3009
Model M35-M	(SV Code 3239)	2630
Model 480 RA	(SV Code 3240)	4008

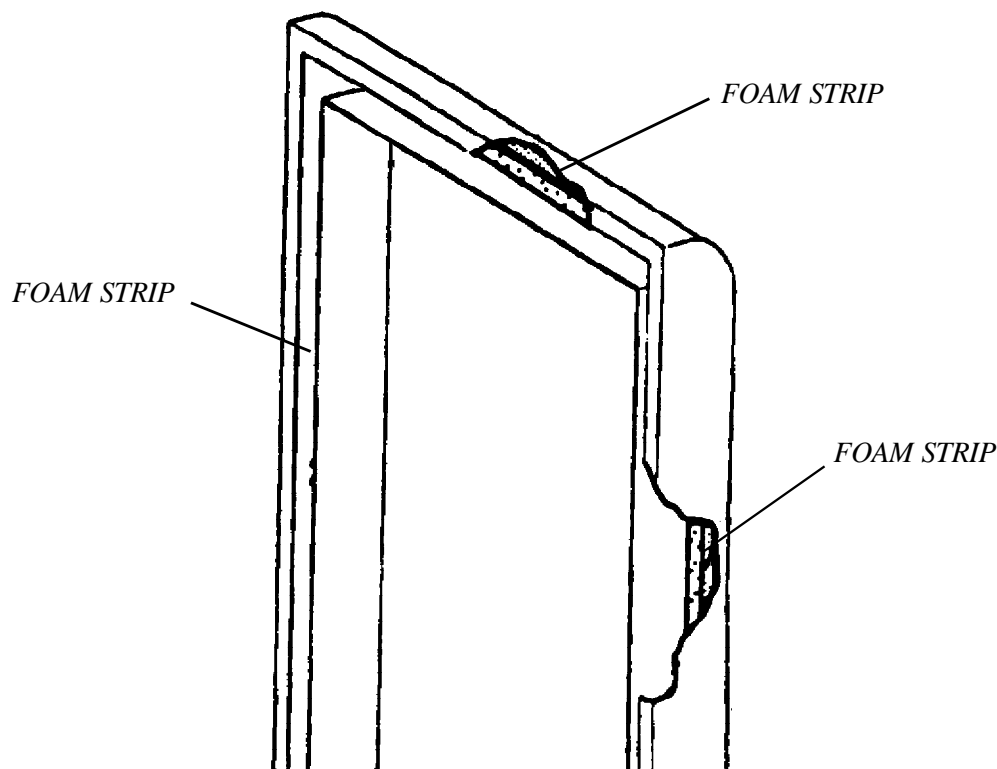
A RED FILTER is now available to convert the DISPLAY to darkroom use. The FILTER has a self-adhesive STRIP and fits inside the FRONT PANEL of the MINILOADER as shown below. This FILTER will NOT be fitted in production, and if it is required it must be ordered from SPARES SERVICES.

The PART NUMBER of the RED FILTER is 30026275.



16. LIGHT LEAKS ON REAR PANEL OF M35-M MODEL

If light leaks are experienced from the area of the CHUTE of the MODEL M35-M, check that the FOAM STRIPS are in place as shown below. The PART NUMBER of the FOAM, LIGHT LOCK is 30015622 and it is ordered by the metre.



17. FILMS NOT LOADING CORRECTLY INTO CASSETTES.

If you have problems with FILMS being pulled back out of CASSETTES by the SUCKER BAR, check the following points.

1. The rear end (HINGE) of the CASSETTE is not being lifted off the CASSETTE CONVEYOR BELT by the CASSETTE OPENING MECHANISM. Adjust if necessary.
2. There should be a gap of at least 1 mm between the base of the SUCKERS and the FILM when the VACUUM is released to drop the NEW FILM into the CASSETTE. Adjust if necessary. NOTE - If it is not possible to get this 1 mm gap by normal adjustments, it is possible to remove the SUCKERS and trim up to 2 mm from the top of the SUCKER (use a very sharp knife). Make sure the SUCKER with the "O" RING is re-fitted in the correct place (nearest the PIVOT).
3. Check the relative humidity, preferably inside the MINILOADER. If the humidity is low, below 40%, the FILM may curl up and slide out of the CASSETTE. The humidity must be controlled to be between 40 and 60%.

18 NEW SOFTWARE.

This article replaces article No. 1 in NEWSLETTER No. 1/NOVEMBER/92. Please delete this article.

The latest version of SOFTWARE is now available. The version for the PROCESSOR INTERFACE (M35-M & 480RA) MINILOADERS is P2.0 - 12/02/93, and for the STAND-ALONE MINILOADERS is S2.0 - 12/02/93.

The table below shows the part numbers of the VARIANTS of this SOFTWARE with the various languages available, please make sure you order the correct EPROM for the type of MINILOADER and for your country.

The MINILOADERS which require the new SOFTWARE are:-

MODEL M35-M	SV CODE 3239	SERIAL NUMBERS below 2638
MODEL STAND-ALONE	SV CODE 3236	SERIAL NUMBERS below 3010
MODEL 480RA	SV CODE 3240	SERIAL NUMBERS below 4009

PART NUMBER	TYPE OF MINILOADER	VARIANT NO.	LANGUAGE
30025870	STAND ALONE	VARIANT 1	ENGLISH/SWEDISH
30025871	M35-M / 480RA	VARIANT 1	ENGLISH/GERMAN
30025872	M35-M / 480RA	VARIANT 2	ENGLISH/ITALIAN
30025873	M35-M / 480RA	VARIANT 3	ENGLISH/SPANISH
30025874	M35-M / 480RA	VARIANT 4	ENGLISH/SWEDISH
30025875	M35-M / 480RA	VARIANT 5	ENGLISH/PORTUGUESE
30025876	M35-M / 480RA	VARIANT 6	ENGLISH/NORWEGIAN
30025869	M35-M / 480RA	VARIANT 7	ENGLISH/FRENCH

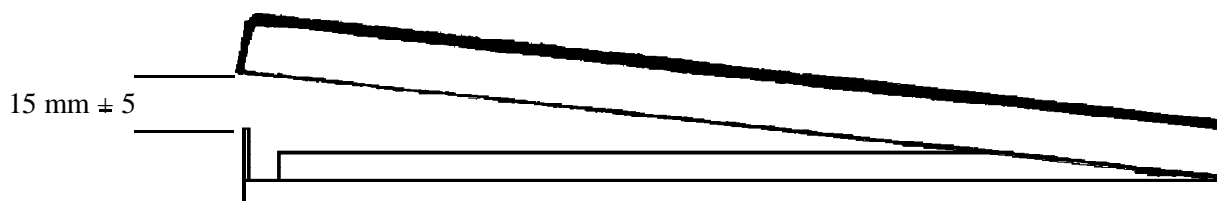
The new SOFTWARE VERSIONS have two extra PARAMETERS P8 & P9, which control the steps at which the CAM MOTOR stops for the CASSETTE AIR BLOW. The procedure for setting the NEW PARAMETERS is shown on the next page.

IMPORTANT: ALL MINILOADERS are shipped with VARIANT 1 SOFTWARE, this means that when delivered, PROCESSOR INTERFACE machines have ENGLISH & GERMAN language available and STAND-ALONE MACHINES have ENGLISH & SWEDISH language available. At installation the correct VARIANT of SOFTWARE for your country should have been ordered by CATALOGUE NUMBER by SALES/MARKETING.

19. SETTING THE NEW PARAMETERS P8 and P9.

In every cycle, the CASSETTE INJECTOR blows air to separate the FILM from the SCREEN of the CASSETTE. It is important that the blow occurs when the CASSETTE is open between 10 and 20 mm. If the CASSETTE is open less the INJECTOR will not operate correctly, if the CASSETTE is open more, the dislodged FILM will not fall accurately into the BASE of the CASSETTE.

It is possible to set the point at which the INJECTOR OPERATES by adjusting the appropriate "AIR BLOW CASSETTE OPENING" PARAMETER. These PARAMETERS control the ENCODER STEP at which the CAM MOTOR will stop for the INJECTOR to operate.



Set the MINILOADER for 18 x 24 FORMAT. Fit the STEP-BY-STEP SWITCH. Enter an 18 x 24 CASSETTE into the MINILOADER. When the CAM MOTOR stops for the CASSETTE INJECTOR to operate, trigger the STEP-BY-STEP SWITCH to freeze the machine. Measure how far the CASSETTE is open. Release the STEP-BY STEP SWITCH and complete the cycle.

Set the MINILOADER for 24 x 30 FORMAT. Repeat the operation as above.

If either CASSETTE was not open approximately 15 mm, the "AIR BLOW CASSETTE OPENING" PARAMETER for that size needs to be adjusted. If the CASSETTE was open too far, the PARAMETER needs to be reduced, if the CASSETTE was not open far enough, the PARAMETER needs to be increased.

If it is necessary to adjust the PARAMETER, enter PROGRAMMING MODE. Scroll through until PARAMETER P8 "AIR BLOW CASSETTE OPENING 18 x 24" is reached. Adjust the PARAMETER P8 to the appropriate figure. The DEFAULT value is 30, the allowable RANGE is between 26 and 32.

Go to PARAMETER P9 "AIR BLOW CASSETTE OPENING 24 x 30". Set the PARAMETER P9 to the appropriate figure. The DEFAULT value is 30, the allowable RANGE is between 26 and 32.

If you have altered the PARAMETERS, repeat the tests above and measure how much the CASSETTE is open. If necessary repeat the adjustment procedure of the PARAMETERS until the correct CASSETTE opening is achieved.

It is advisable to make a note of the PARAMETERS you have set inside the MINILOADER. If the machine is not used for some time, the back up BATTERY may discharge, and the PARAMETERS will return to the DEFAULT value.

20. NEW PROCEDURE FOR SETTING ENCODER HOME POSITION.

Due to manufacturing tolerances, the original method of setting the ENCODER HOME position using the PIN in the CAM must be discontinued. A new TOOL is available (PART NUMBER 30026274) for setting the HOME POSITION.

The TOOL has two CUTOUTS, the first is used to set the low position of the CASSETTE OPENER MECHANISM, as shown below in Figure A. Using TEST MODE, drive the CAM MOTOR so the CASSETTE OPENER MECHANISM is in its lowest position. Using the TOOL, check that the OPENER MECHANISM is in the CUTOUT as shown. If the OPENER MECHANISM is not in the CUTOUT, adjust the PUSHROD to set the OPENER MECHANISM in the CUTOUT.

Then drive the CAM MOTOR to ENCODER POSITION 255. Using the other CUTOUT in the TOOL, check that the OPENER MECHANISM is between the EDGES of the CUTOUT as shown in Figure B. If the OPENER MECHANISM is not between the EDGES of the CUTOUT, set it to the CENTRE of the CUTOUT by driving the CAM MOTOR (or using the CAM CLUTCH ADJUSTING TOOL 30015676), then loosen the GEAR on the ENCODER and set the ENCODER to ENCODER POSITION 255.

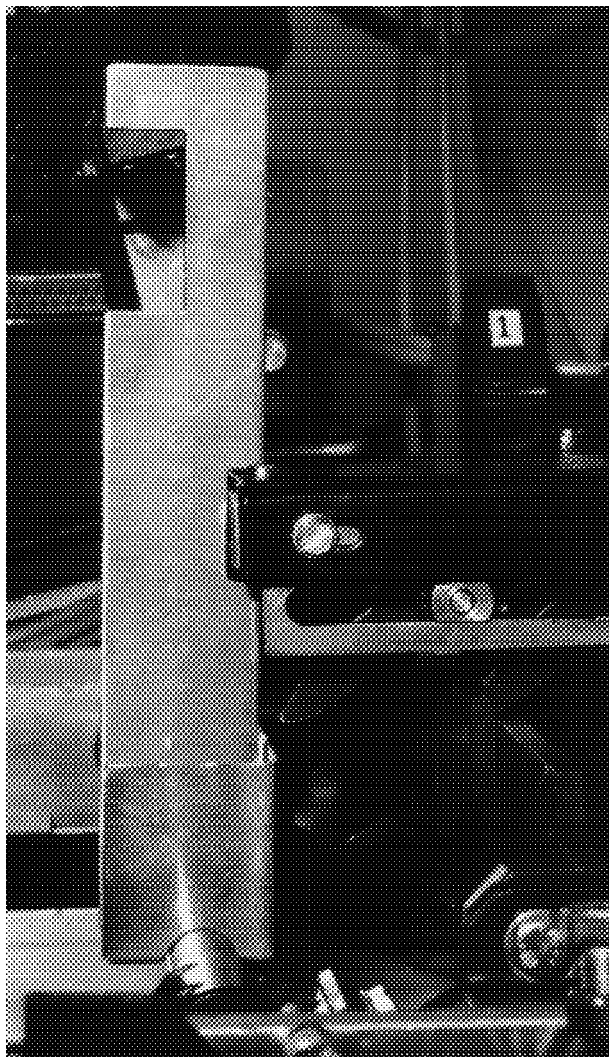


FIGURE A

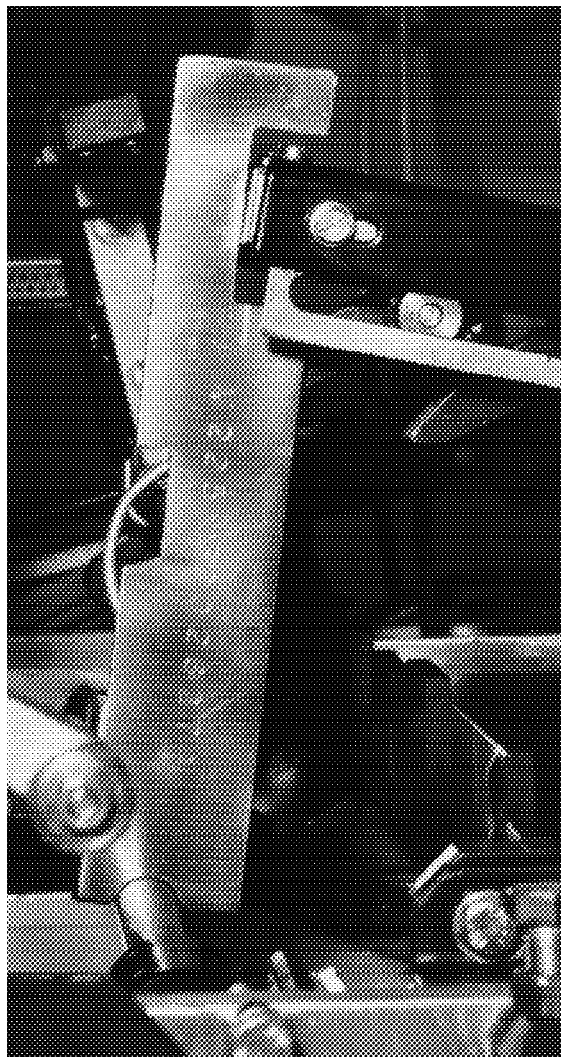


FIGURE B

21. CORRECTIONS TO PARTS LIST.

Please make the following corrections to the PART LIST IP 3239 issued in DECEMBER 1993.

Figure 1C Page 44 The fitting above the PRESSURE GAUGE should be STRAIGHT as shown below.
PART NUMBER 30015591
The other FITTING no 2 at the bottom of the page is correct.

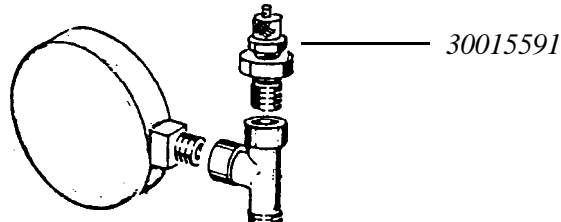


Figure 1D Page 47 Item 4 Delete 30015540 SCREW, HEX-HEADED, M4 x 30 (OTHER MODELS)
Add 30025108 SCREW, HEX-HEADED, M4 x 25 (OTHER MODELS)

Item 11 Delete 30015539 SCREW, HEX-HEADED, M4 x 16
Add 30015538 SCREW, HEX-HEADED, M4 x 14

Figure 2A Page 49 Item 7 Delete 30025162 SCREW, HEX-HEADED, M3 x 10
Add 30025811 SCREW, HEX-HEADED, M3 x 16

Figure 2B Page 51 Item 10 Delete 30025162 SCREW, COUNTERSUNK, M4 x 16
Add 30015561 SCREW, COUNTERSUNK, M4 x 10

Figure 5A Page 83 Item 26 Delete 30025162 NUT, M3
Add 30025168 NUT, THIN, M3

Also add the two SCREWS and WASHERS in the end of the SUCKER BAR as shown below.

2 Off 30025169 WASHER, TEFLON, M5
1 Off 30025165 SCREW, SOCKET HEADED, M5 x 5
1 Off 30025166 SCREW, SOCKET HEADED, M5 x 6

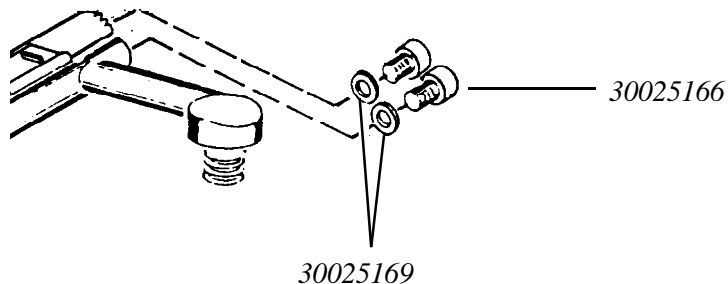
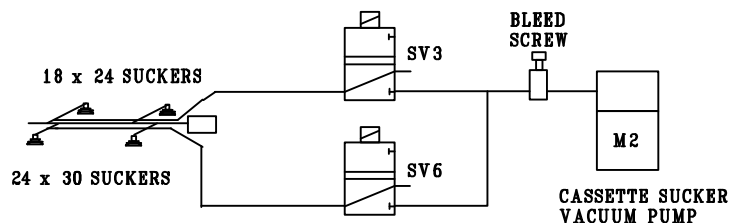


Figure 5J Page 101 Item 32 Delete 30025162 SCREW, SOCKET-HEADED, M3 x 10
Add 30015550 SCREW, CROSS HEAD, M3 x 10

22. CORRECTIONS TO DIAGRAM PACKAGE.

Please make the following corrections to the DIAGRAM PACKAGE DG 3239, issued in January 1993.

Page 5 Alter the CASSETTE VACUUM drawing as shown below. (Alter the position of the BLEED SCREW, and delete the second BLEED SCREW).

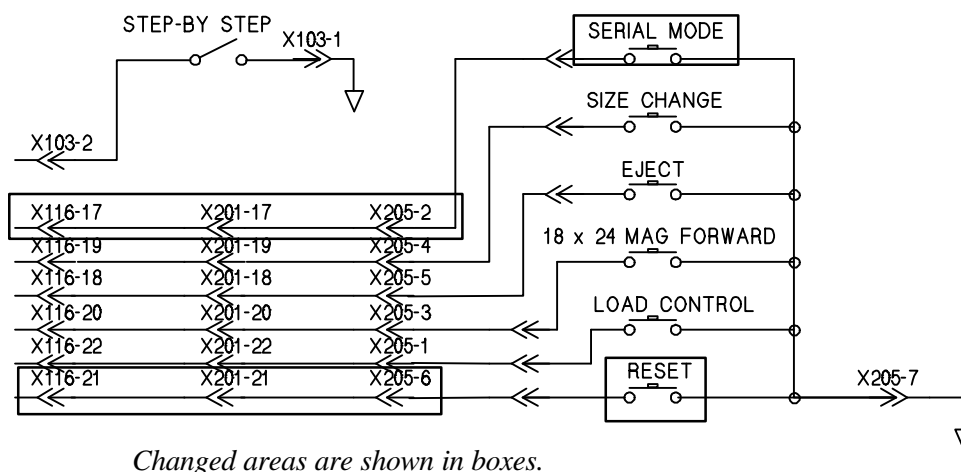


Page 7 The FUSE marked F22 4 AMP should read F24 10 AMP. Ref. B6.
The FUSE marked F24 16 AMP should read F22 4 AMP Ref. D7.

Page 8 The FUSE marked F22 4 AMP should read F24 10 AMP. Ref. C1.
The FUSE marked F24 16 AMP should read F22 4 AMP Ref. A5.
The CAPACITOR marked C151 should read C161. Ref. A3.

Page 9 The eight RELAY CONTACTS marked K8F and K8R should read K6F and K6R. Ref. D3 and E3.

Page 20 Correct the SERIAL and RESET inversion of BUTTONS and PLUG numbers as shown below.
Ref. D4 to 6 and E4 to 6.



Page 22 CRYSTAL Y101 is shown as 100 MHz, it should read 11.37 MHz. Ref. A1.

Page 26 On the drawing of the MICROPROCESSOR PD78C10A, there are two PIN 64's. The PIN marked STOP should be PIN 63.

23. CORRECTIONS TO COMPONENT LOCATOR.

Please make the following corrections to the COMPONENT LOCATOR CL 3239, issued in December 1992.

Page 4 Under heading PRINTED CIRCUIT BOARDS, alter PCB 304 to read PCB 204.

Page 7 Under heading TEST POINTS delete line CLOCK 11340 MHz.

Page 8 On FIGURE 1, alter designation PCB 304 to PCB 204.

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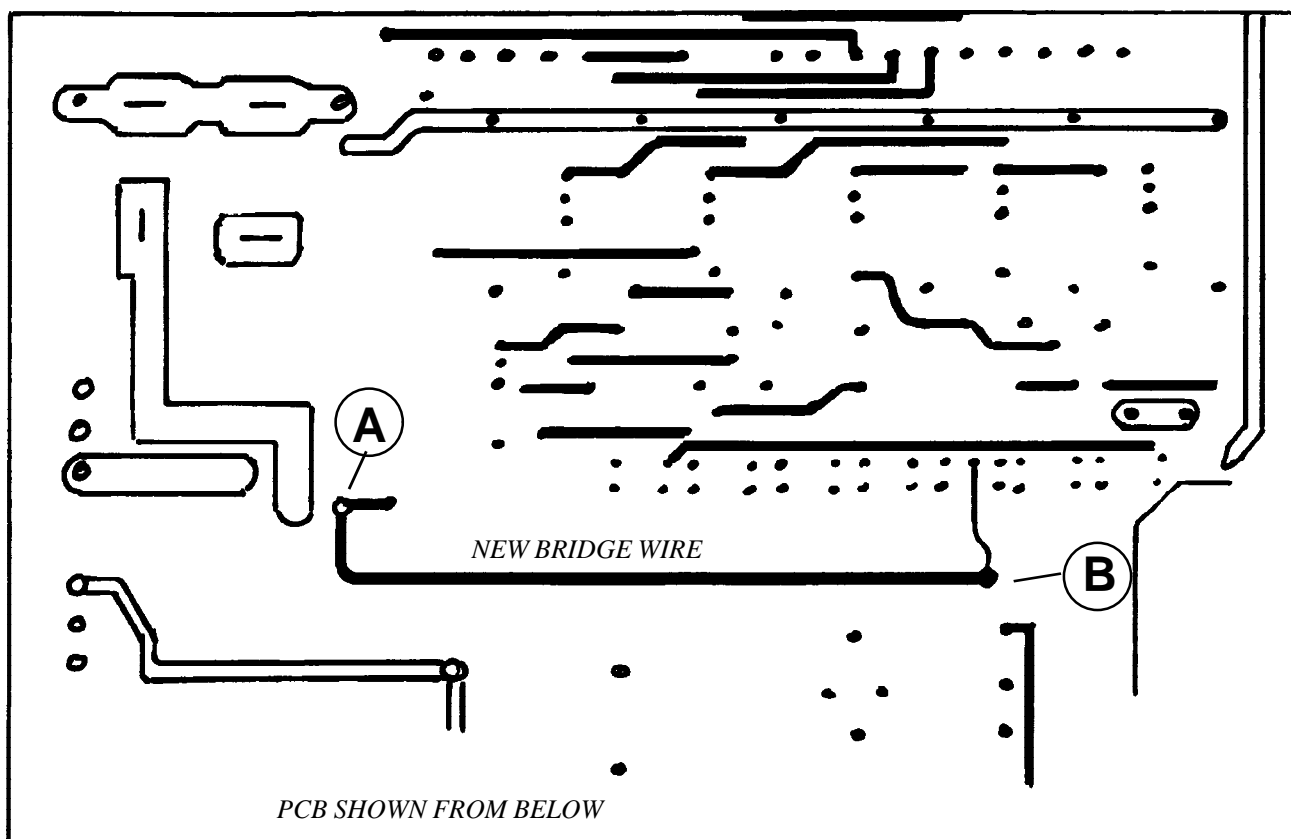


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CES TECHNICAL NEWSLETTER MINILOADER 2 PLUS**Health Sciences Products****FOR KODAK PERSONNEL USE ONLY****ISSUE: No 3/JULY/93**

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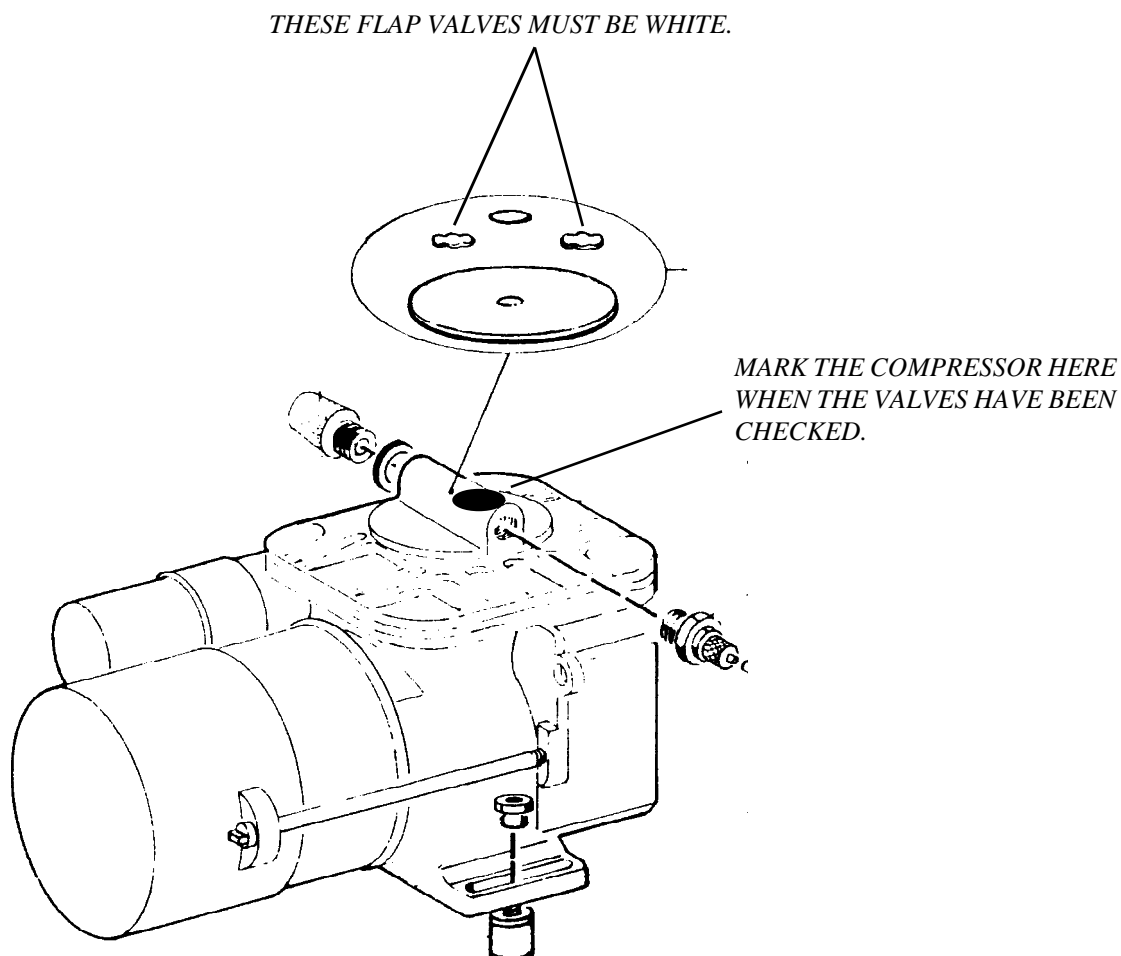
Model STAND-ALONE	(SV Code 3236)	3009
Model M35-M	(SV Code 3239)	2630
Model 480RA	(SV code 3240)	4008



25. FLAP VALVES IN THE COMPRESSOR.

The manufacturer of the COMPRESSOR has made an error during assembly of some COMPRESSOR. In some COMPRESSORS, black rubber FLAP VALVES were fitted instead of white TEFLON VALVES. These black rubber valves can stick, causing intermittent low pressure. This low pressure can result in MULTIPLE FILM LOADS and FILMS STICKING to the CASSETTE SCREEN. It is not known which serial numbers of MINILOADERS may be affected. At the next PM CALL, please remove the HEAD of the COMPRESSOR and check that the correct FLAP VALVES are fitted. It is not necessary to remove the COMPRESSOR from the MINILOADER, the HEAD Can be unbolted with the COMPRESSOR in situ. If the VALVES are not WHITE, they are incorrect and MUST be changed. A limited number of the FLAP VALVES are available on PART NUMBER 300255175 no charge. When the stock of these valves is finished, the COMPRESSOR REPAIR KIT 30015606 can be used.

It is suggested that when a COMPRESSOR is checked and the FLAP VALVES are found to be correct, a MARK is made on the COMPRESSOR HEAD with a marker pen.

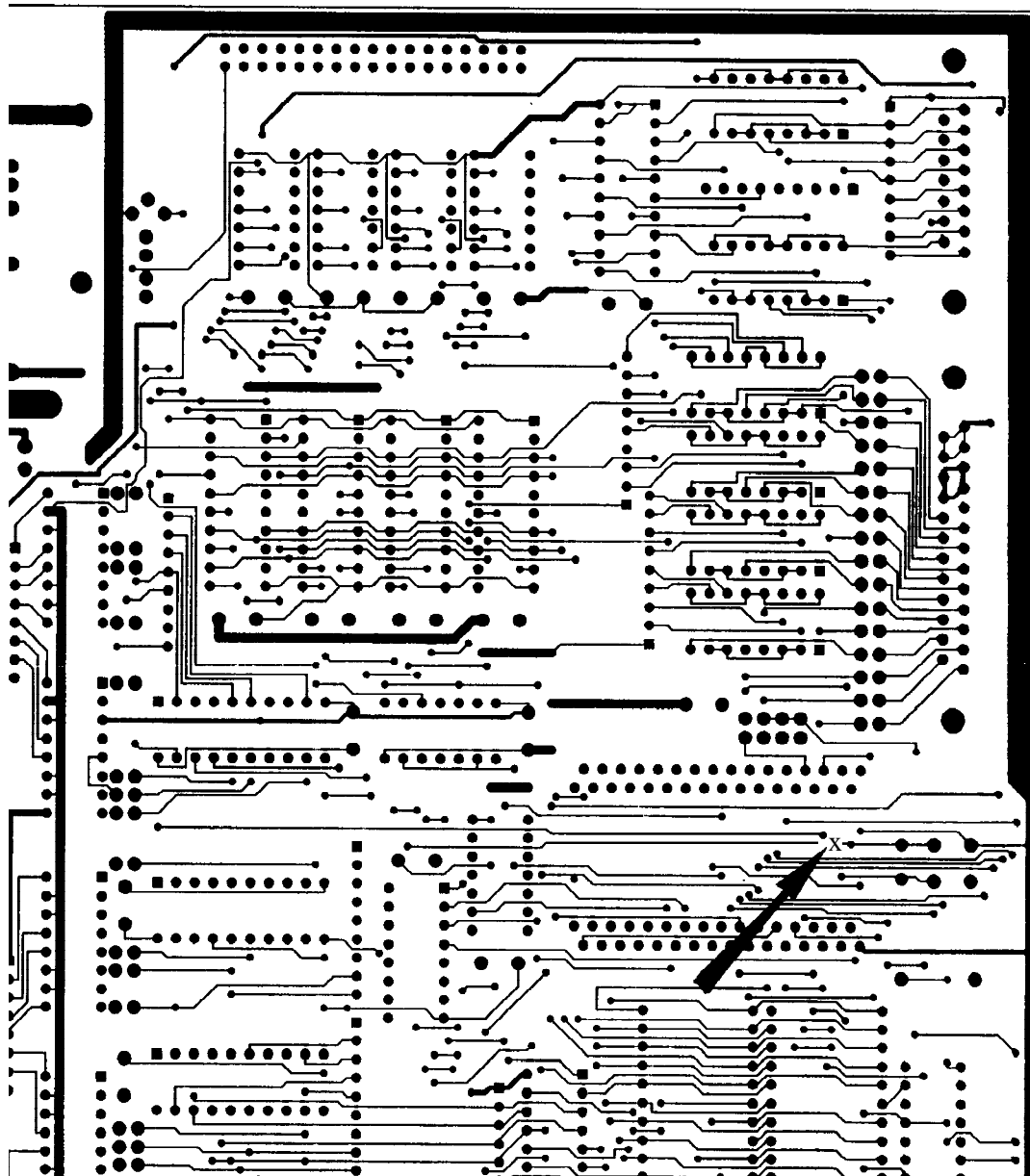


26. MICROPROCESSOR MALFUNCTIONS.

To prevent malfunctions of the MICROPROCESSOR, which can result in the MINILOADER running the CONVEYOR in reverse at the end of a cycle, or other MOTORS running continuously, or spurious characters appearing on the DISPLAY, two changes have been introduced in production. The first change was to cut the PCB TRACK between the MICROPROCESSOR and the TEST POINT for the MICROPROCESSOR CLOCK. Under some circumstances this TRACK can act as an AERIAL, and interference can prevent the MICROPROCESSOR from running correctly. This change was introduced in MINILOADER with SERIAL NUMBERS from:-

Model STAND-ALONE	(SV Code 3236)	3009
Model M35-M	(SV Code 3239)	2635
Model 480RA	(SV code 3240)	4008

This TRACK should be cut in MINILOADERS in the field. The drawing below shows where the CUT should be made. The CUT is made on the UNDERSIDE of the PCB, in the area where the MICROPROCESSOR CHIP is mounted. IMPORTANT, remove at least 5 mm of the TRACK.



THE TRACK IS
CUT AT POINT X.

The second change was to fit a GROUND LEAD between the ENTRY PAD of the MINILOADER and the FRAME. The original GROUND LEAD only runs from the ENTRY PAD to the top of the FRONT COVER. This does not give a secure ground. The new GROUND LEAD prevents a static charge building up on the ENTRY PAD, especially in low humidity conditions, which can cause MICROPROCESSOR MALFUNCTIONS.

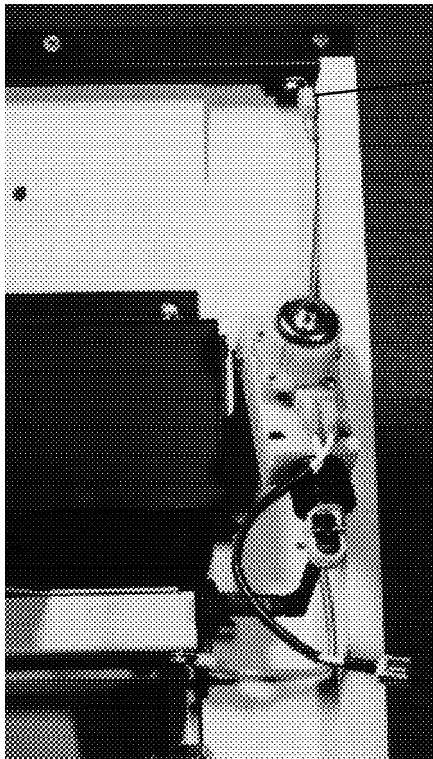
This GROUND LEAD was fitted in production from SERIAL NUMBERS:-

Model STAND-ALONE	(SV Code 3236)	3012
Model M35-M	(SV Code 3239)	2638
Model 480RA	(SV code 3240)	4010

This GROUND LEAD should be retrospectively fitted to earlier MINILOADERS. The PART NUMBER of the lead is 30025889 and it is available free of charge.

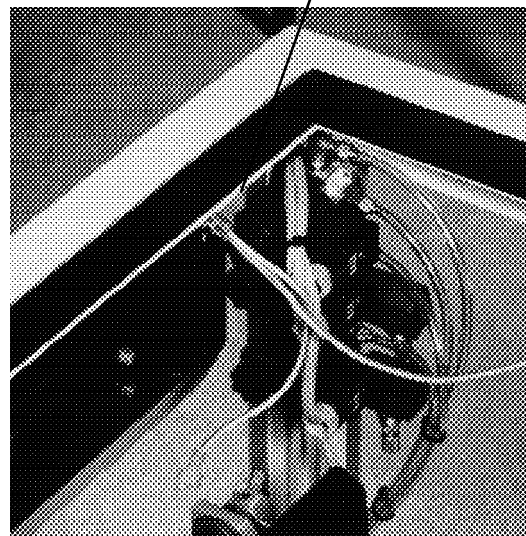
Use the new GROUND LEAD to extend the existing lead to the FRAME. See the diagrams below.

It is important that if the FRONT PANEL of the MINILOADER is removed for servicing, this GROUND LEAD is always refitted.



*DISCONNECT THE EXISTING GROUND LEAD
HERE, AND EXTEND IT WITH THE NEW LEAD.*

*CONNECT THE OTHER END OF THE
NEW LEAD TO THE FRAME HERE.*



27. NEW SOFTWARE AVAILABLE.

This article replaces article No. 18 in NEWSLETTER No. 2/APRIL/1993. Please delete article No. 18.

The latest version of SOFTWARE is now available. The version for PROCESSOR INTERFACE (M35-M & 480RA) MINILOADERS is P2.1, and for STAND-ALONE MINILOADERS is S2.1.

The table below shows the part numbers of the VARIANTS of this SOFTWARE with the various languages available, please make sure you order the correct EPROM for the type of MINILOADER and for your COUNTRY.

The MINILOADERS which require the new SOFTWARE are:-

MODEL STAND-ALONE	SV CODE 3236	SERIAL NUMBERS BELOW 3016
MODEL M35-M	SV CODE 3239	SERIAL NUMBERS BELOW 2665
MODEL 480RA	SV CODE 3240	SERIAL NUMBERS BELOW 4011

PART NUMBER	TYPE OF MINILOADER	VARIANT NO.	LANGUAGE
30025891	STAND ALONE	VARIANT 1	ENGLISH/SWEDISH
30025892	M35-M / 480RA	VARIANT 1	ENGLISH/GERMAN
30025893	M35-M / 480RA	VARIANT 2	ENGLISH/ITALIAN
30025894	M35-M / 480RA	VARIANT 3	ENGLISH/SPANISH
30025895	M35-M / 480RA	VARIANT 4	ENGLISH/SWEDISH
30025896	M35-M / 480RA	VARIANT 5	ENGLISH/PORTUGUESE
30025897	M35-M / 480RA	VARIANT 6	ENGLISH/NORWEGIAN
30025890	M35-M / 480RA	VARIANT 7	ENGLISH/FRENCH

The changes in the new SOFTWARE are as follows.

1. When a MAMMOGRAPHY CASSETTE is reloaded, PHOTOCCELL FC13 (in the MULTIPLE FILM DETECTOR) is now used to check that the CASSETTE was reloaded, instead of PHOTOCCELL FC1. This will remove the errors caused by curled FILM allowing FC1 to "see" the FC1 PATCH under the FILM and give a false indication of "CASSETTE IS NOT LOADED". FC1 is used as normal to detect if there is a FILM in the CASSETTE when the CASSETTE is entered.

2. In TEST MODE, the TILT MOTOR now advances to the next MICROSWITCH instead of running continuously when it is actuated. This makes the set up of the MICROSWITCHES for HOME and TILT position more simple.

3. The COMPRESSOR will now stop during the cycle after the MAGAZINE INJECTOR BLOW instead of running to the end of the cycle. This will reduce noise and COMPRESSOR wear.
4. Language translation errors reported from Sweden and Germany have been corrected.
5. It is now possible to dispense with the CASSETTE INJECTOR BLOW that occurs in every cycle as the CASSETTE opens. If FC4 detects a FILM stuck to the CASSETTE SCREEN the CASSETTE LID will be returned to the BLOW position as normal. This change has been introduced as testing has shown that with the new CASSETTES with the SPRING LOADED "BUTTON" in the SCREEN (or if the original CASSETTE is modified with a SPRING), the FILM rarely sticks to the SCREEN, and a cycle time saving of approximately 3 seconds can be made by dispensing with the blow. This feature is selected by using a DIPSWITCH, see the next article for details. IMPORTANT :- If the MINILOADER is interfaced to a PROCESSOR, remember to set the "GAP BETWEEN FILMS" PARAMETER P4 again if this feature is selected, otherwise FILMS may be overlapped.
6. It is possible to speed up the MINILOADER by fitting a new CAM MOTOR GEAR with 14 TEETH instead of the factory fitted GEAR with 10 TEETH. The part number of the 14 TOOTH GEAR is 30013391. However, if the "SPEED UP" GEAR is fitted, the ability of the CAM MOTOR to find the HOME POSITION is reduced. To correct this a DIPSWITCH setting can be made to select a different HOME POSITION routine depending on the GEAR fitted. See the next article for details of the DIPSWITCH setting.

THE NEXT TWO CHANGES REFER TO PROCESSOR INTERFACE P2.1 SOFTWARE ONLY.

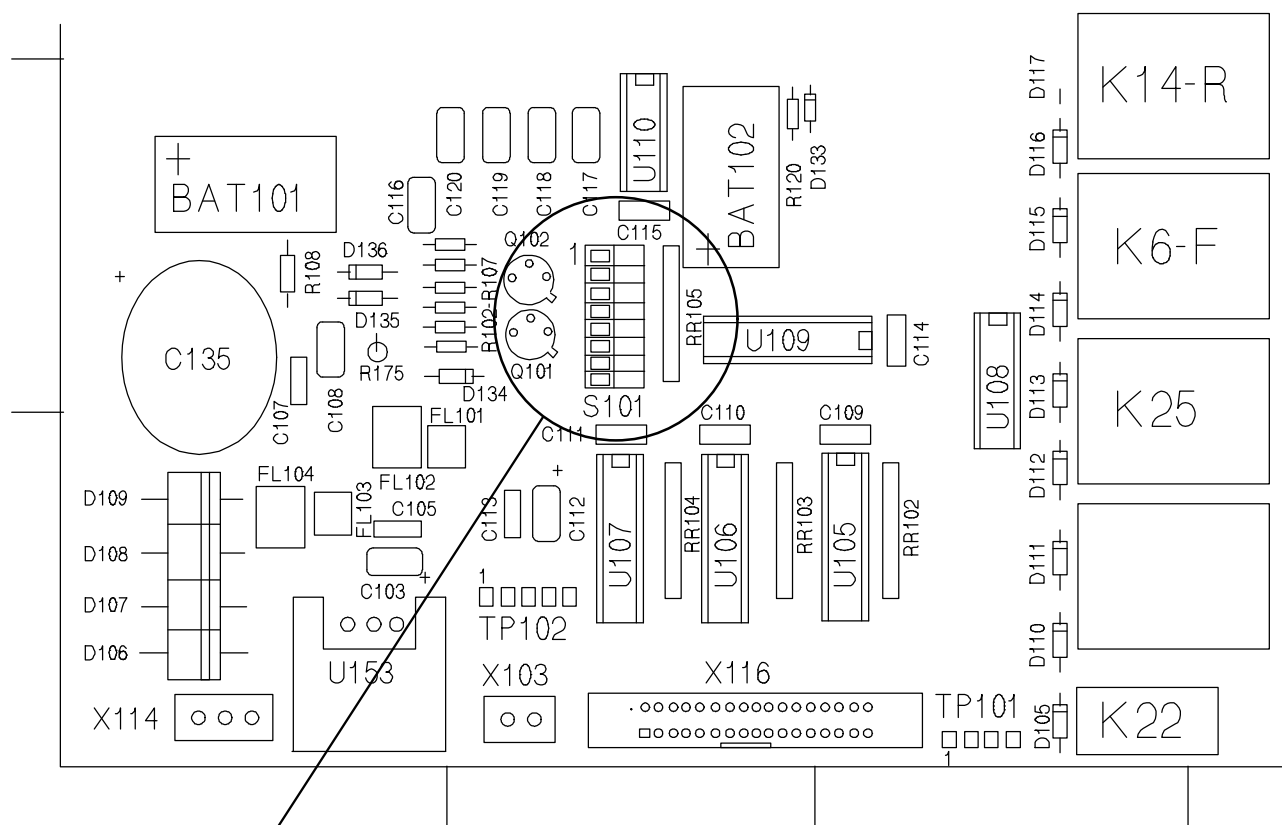
7. In 18 x 24 SERIAL MODE, MAGAZINE EMPTY detection is made when either FC6 or FC12 goes high. This feature is to allow the use of the ADAPTOR FRAME for MINILOADER 1 MAGAZINES in a MINILOADER 2 PLUS. This feature was supposedly available in earlier versions of SOFTWARE, but did not operate correctly.
8. If the last FILM was not removed from the CASSETTE in 18 x 24 or 24 x 30 SERIAL MODE, the CASSETTE was ejected with the FILM inside, and the only indication of this was the fact that the "CASSETTE IS EMPTY" message was not displayed. This condition will now result in an error MESSAGE being displayed to warn the operator that there is a FILM in the CASSETTE.

It is recommended that this new SOFTWARE is fitted at the next SERVICE CALL to the MINILOADER as the new feature of using PHOTOCCELL FC13 to detect if a CASSETTE is reloaded will dramatically improve the performance of the MINILOADER if curled FILM is experienced. Stock will be available from AUGUST 1993.

The old versions of SOFTWARE are no longer available. Any MINILOADERS using the optional ADAPTOR FRAME for MINILOADER 1 MAGAZINES in a MINILOADER 2 should have the new SOFTWARE fitted as a priority.

28. FUNCTION OF DIP-SWITCHES ON PCB 301.

Function of the DIP-SWITCHES on PCB 301 with SOFTWARE VERSIONS P2.1, S2.1 and higher.



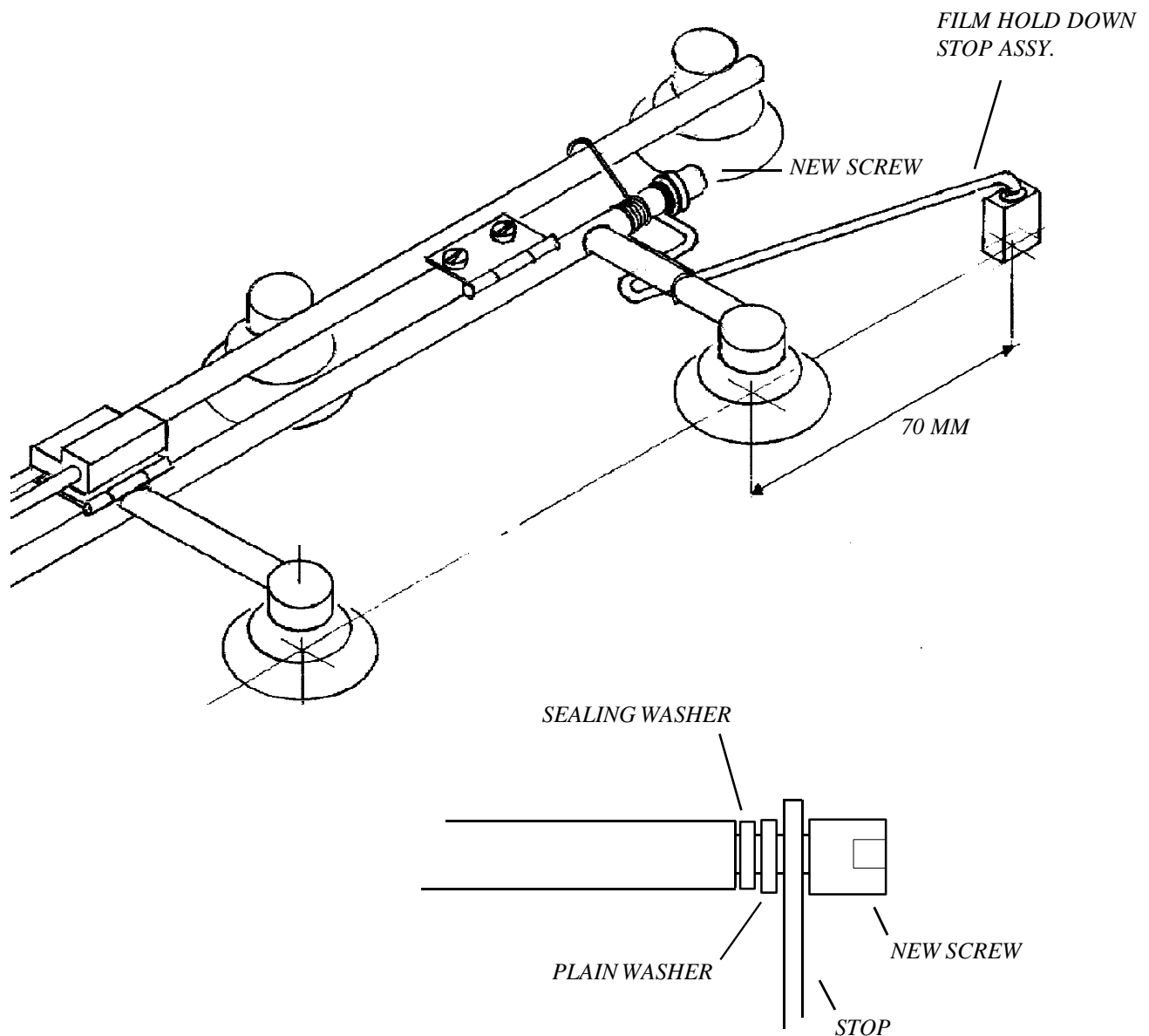
OFF ON

1	<input type="checkbox"/>	<input type="checkbox"/>	ON to select CONTINUOUS CYCLES OFF for customer operation
2	<input type="checkbox"/>	<input type="checkbox"/>	STAND-ALONE only - 2 ON 3 OFF, FILMS collected separately
3	<input type="checkbox"/>	<input type="checkbox"/>	STAND-ALONE only - 3 ON 2 OFF, FILMS collected in one MAGAZINE
4	<input type="checkbox"/>	<input type="checkbox"/>	OFF if the standard CAM MOTOR SPROCKET (10 TEETH) is fitted ON if the larger "SPEED UP" SPROCKET (14 TEETH) is fitted
5	<input type="checkbox"/>	<input type="checkbox"/>	OFF to make the CASSETTE INJECTOR operate as the CASSETTE OPENS ON to prevent the CASSETTE INJECTOR operating unless FC4 detects a FILM
6	<input type="checkbox"/>	<input type="checkbox"/>	ON to make Mod 2 active (second patch on VIDEO CASSETTES)
7	<input type="checkbox"/>	<input type="checkbox"/>	OFF - CASSETTE INJECTOR operates in 8 x 10" mode ON - CASSETTE INJECTOR does not operate in 8 x 10" mode
8	<input type="checkbox"/>	<input type="checkbox"/>	NO FUNCTION

29. CASSETTE FILM HOLD DOWN STOP and NEW PHOTOCELL FC1 ASSEMBLY.

If FILM curl is present, it is possible for PHOTOCELL FC1 to see under the FILM in the CASSETTE when the CASSETTE is opened, and the MINILOADER thinks the CASSETTE is empty. To improve this situation, two changes have been made.

1. A CASSETTE FILM "HOLD DOWN" STOP has been designed. This new assembly is fastened to the CASSETTE SUCKER BAR, and it presses the FILM onto the BASE of the CASSETTE as the SUCKER BAR comes into the CASSETTE to pick up the FILM. This new STOP will not be fitted in production, but is available as a spare part on PART NUMBER 30026279. It is supplied as an assembly, including a new longer SCREW, a WASHER and a SEALING WASHER.



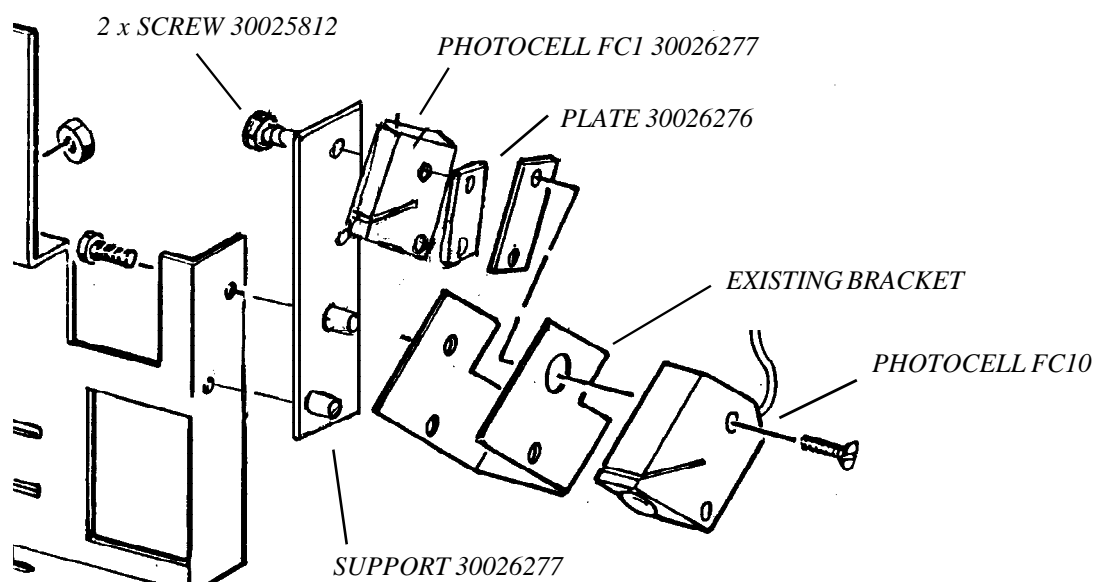
2. A new PHOTOCELL FC1 and SUPPORT BRACKET has been introduced.

The new PHOTOCELL FC1 has a longer focal length, and the new SUPPORT BRACKET raises the PHOTOCELL by 50 mm. This change improves FILM presence detection because the PHOTOCELL now looks into the CASSETTE at a steeper angle.

This new PHOTOCELL and BRACKET is fitted in production from:-

MODEL STAND-ALONE	SV CODE 3236	SERIAL NUMBERS ABOVE 3016
MODEL M35-M	SV CODE 3239	SERIAL NUMBERS ABOVE 2665
MODEL 480RA	SV CODE 3240	SERIAL NUMBERS ABOVE 4011

The necessary parts to fit the new PHOTOCELL and BRACKET to earlier MINILOADERS is available under part number 30026280.



When the new PHOTOCELL is fitted, set it up in the normal manner using the TOOL 30015675 or 30015676. Set the sensitivity of the PHOTOCELL by turning the POTENTIOMETER counter-clockwise until the LED switches off, then clockwise five turns.

30. NEW MAGAZINE INJECTOR STOP.

To make it possible to set the height of the MAGAZINE INJECTOR more accurately to obtain better FILM separation in the MAGAZINE, a new MAGAZINE INJECTOR BAR STOP has been produced.

There are two changes to this new STOP.

A second THREAD has been added at the base of the STOP. This THREAD is finer than the original upper THREAD, and allows finer adjustment.

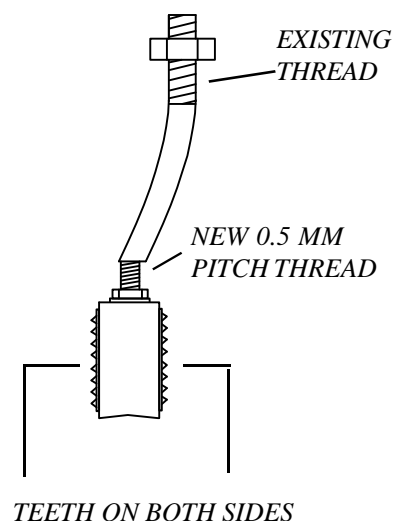
The rubber part of the STOP now has the separator TEETH on both sides, so it is possible to turn the STOP through 180 degrees, compared with the 360 degrees of the original STOP.

The setting resolution of the original STOP was 0.8 mm, the new STOP has a setting resolution of 0.25 mm.

The PART NUMBER of the new STOP ASSEMBLY is 30026278, and it is supplied complete as illustrated.

This new STOP is fitted in production from:-

MODEL STAND-ALONE	SV CODE 3236	SERIAL NUMBERS ABOVE 3016
MODEL M35-M	SV CODE 3239	SERIAL NUMBERS ABOVE 2665
MODEL 480RA	SV CODE 3240	SERIAL NUMBERS ABOVE 4011



31. MODIFICATION M06 (TYPE 2).

Modification M06 is a modification to reduce service calls by replacing six glass fuses with auto-resetting devices. The MOTORS affected are the CAM MOTOR, MAGAZINE CARRIAGE MOTOR, CASSETTE CONVEYOR MOTOR, CASSETTE GUIDE MOTOR, 8 X 10 ENDSTOP MOTOR and the TILT MOTOR. These changes should eliminate service calls that are made purely to replace blown FUSES.

PART NUMBER 30091106 AVAILABLE AUGUST 1993

SERIAL NUMBERS AFFECTED:-

Model STAND-ALONE	(S V Code 3236)	3001 - 3014
Model M35-M	(S V Code 3239)	2603 - 2654
Model 480RA	(S V Code 3240)	4001 - 4009

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